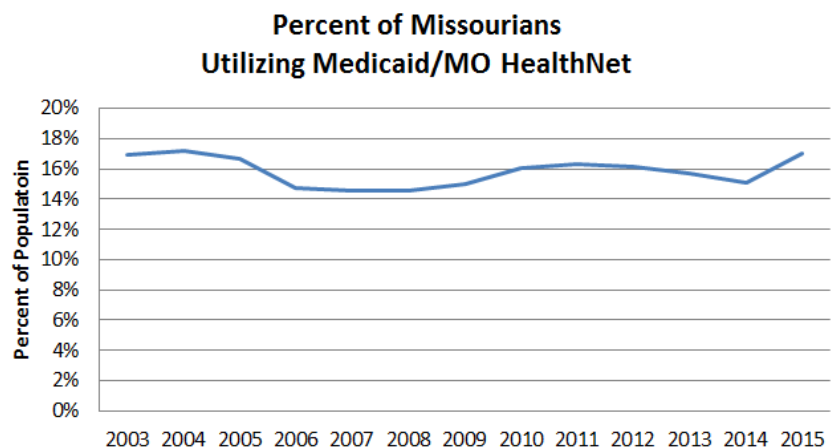


Data on public assistance program enrollment can be valuable to researchers and policymakers interested in access to health care and overall utilization of public services. To this end, Medicaid and TANF (Temporary Assistance for Needy Families) program data from the Missouri Department of Social Services have been made available through the MICA system. This article provides background information and examples of the types of data analysis available through the Medicaid (or MO HealthNet) MICA; the next issue will spotlight the TANF MICA.

The Medicaid/MO HealthNet MICA provides monthly enrollment data for every year going back to 2003. The data represent a snapshot of Medicaid/MO HealthNet participation based on enrollment figures on the last day of a given month. Thus, there are limitations to these data. The figure for a particular month does not include participants who were enrolled in the program at the beginning of the month but terminated participation before the last day of the month. Conversely, the figure will include participants who were enrolled on the last day of the month even if they were only enrolled for that day. Because of these limitations, users of this MICA cannot obtain an unduplicated count of all persons enrolled in the program for a calendar year. However, there is still much analysis that can be conducted with the available data.

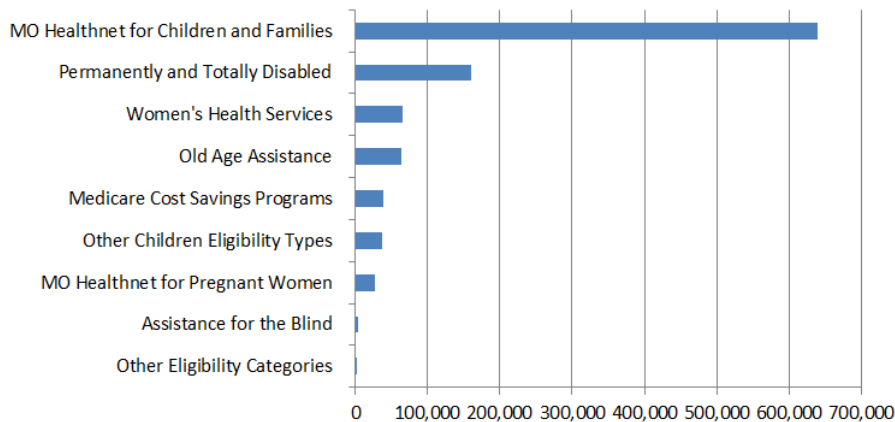
The graph on the right shows trends in the percentage of Missouri residents enrolled in Medicaid/MO HealthNet on June 30th of each year. The number of participants was obtained from the Medicaid/MO HealthNet MICA, while population figures were obtained from the Population MICA and the U.S. Census Bureau (2014 and 2015 estimates).



Sources: Medicaid/MO HealthNet MICA, Population MICA, and the U.S. Census Bureau

As the chart illustrates, the proportion of Missourians enrolled in the Medicaid/MO HealthNet program has waxed and waned. A peak of 17.2 percent of Missouri residents were enrolled in June 2004, but by 2007 the participation rate had decreased to 14.5 percent. Another crest reached 16.3 percent in 2011, but the participation rate then dipped to 15.1 percent in 2014. By 2015, enrollment had risen to nearly the 2004 peak at 17.0 percent.

Medicaid/MO HealthNet Enrollment by Category
August 2015



Source: Medicaid/MO HealthNet MICA

The Medicaid/MO HealthNet MICA also allows users to view total enrollment by MO HealthNet Category. The bar chart on the left shows the distribution of program recipients by category. As of August 2015, there were 1,036,685 recipients of some form of Missouri HealthNet. A commanding majority of these, 61.6 percent,

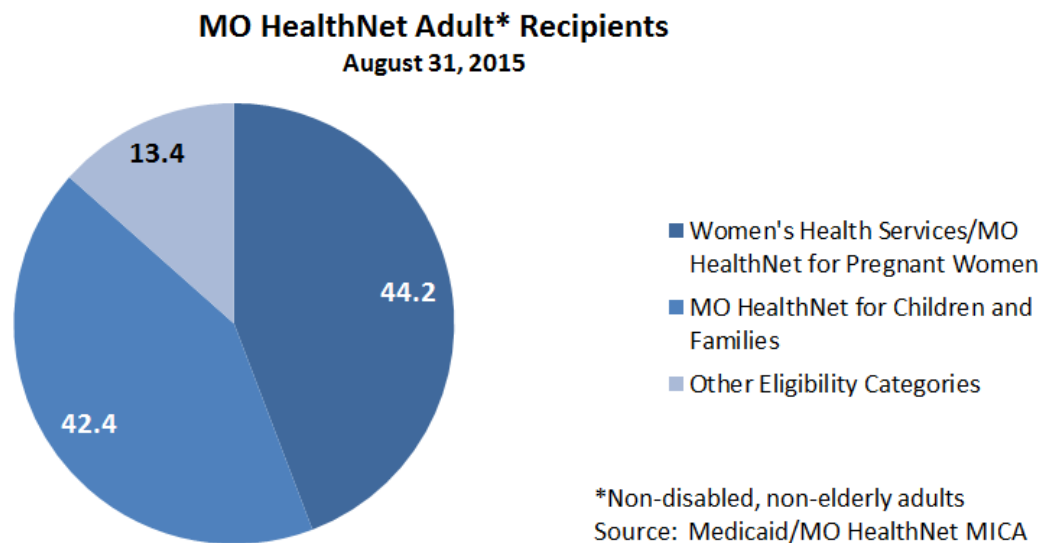
were enrolled through the MO HealthNet for Children and Families Program. Children age 18 and younger comprise 552,353 of these participants – 86.4 percent of the Children and Families Program and 53.3 percent of all MO HealthNet clients. This program provides coverage to children in low income families.¹ 15.8 percent of Missouri HealthNet recipients are enrolled in the Assistance for the Blind and Permanently and Totally Disabled programs. Another 10.0 percent of recipients are enrolled in one of the two programs for seniors – the Old Age Assistance and the Medicare Cost Savings Programs.

Further analysis of MO HealthNet program categories reveals that children, disabled residents of all ages, and low-income and elderly adults comprise the majority of participants. Adults who are not disabled and not elderly represent only around one-fifth of Missouri's recipient population. This share is considerably smaller than the 27.0 percent of national Medicaid recipients who fall into the same category.² (To view definitions of these enrollment groups, please visit <http://kff.org/medicaid/state-indicator/distribution-of-medicaid-enrollees-by-enrollment-group/#notes>.)

Medicaid Enrollment by Group			
<i>Group</i>	<i>Number of MO Participants (August 31, 2015)</i>	<i>MO Participation Rate (August 31, 2015)</i>	<i>U.S. Participation Rate (2011)</i>
Children Age 18 and Younger	586,609	57	48
Blind/Disabled	163,490	16	15
Elderly	81,942	8	9
Non-disabled, Non-elderly Adults	204,644	20	27
Total Medicaid Enrollment	1,036,685		

Sources: Medicaid/MO HealthNet MICA (MO data); Kaiser Family Foundation (U.S. data)

Most of the adult MO HealthNet recipients who are not disabled or elderly are women of childbearing age or adults with children. Approximately 44 percent of Missouri's non-disabled, non-elderly adult participants are enrolled in either the MO HealthNet for Pregnant Women program, which provides coverage to women with a family income that is no more than 185 percent of the FPL for the duration of pregnancy and two months postpartum, or the Women's Health Services program. The Women's Health Services program provides an additional year of women's health services coverage for women who lose other MO HealthNet healthcare coverage after two months postpartum and also provides these same services to low-income women between the ages of 18 and 55 who are not eligible for similar services through other programs. Another 42 percent of the non-disabled, non-elderly adults enrolled in MO HealthNet receive coverage through the MO HealthNet for Children and Families program because they are members of a low income family with children. The remaining 14 percent of adults obtained coverage through some other eligibility category.³



References:

¹ Missouri Department of Social Services. (August 18, 2015). *About the MO HealthNet Division*. Accessed January 12, 2016, from <http://dss.mo.gov/mhd/general/pages/about.htm>.

² Kaiser Family Foundation. (2011). Distribution of Medicaid Enrollees by Enrollment Group. *State Health Facts*. Accessed January 12, 2016, from <http://kff.org/medicaid/state-indicator/distribution-of-medicaid-enrollees-by-enrollment-group/>.

³ Missouri Department of Social Services. (August 18, 2015). *About the MO HealthNet Division*. Accessed January 12, 2016, from <http://dss.mo.gov/mhd/general/pages/about.htm>.

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### **2015 Missouri Primary Care Needs Assessment Posted**

The Office of Primary Care and Rural Health (OPCRH), with assistance from the Bureau of Health Care Analysis and Data Dissemination, recently published the *2015 Missouri Primary Care Needs Assessment*. The report evaluates all Missouri counties and the City of St. Louis on 32 primary care health indicators, which are subdivided into two groups: health status and health care access. Geographies are ranked based on areas of highest overall primary care needs. The full report is available on the OPCRH website at <http://health.mo.gov/living/families/primarycare/pdf/PrimaryCareNeedsAssessment.pdf>.

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FOCUS Article on Heroin Deaths Released

In December, the Bureau of Vital Statistics released a FOCUS article titled “Accidental Drug Poisoning Deaths with Heroin Involvement in Missouri.” The article outlines the increase in heroin deaths in recent years, examines the different impacts of these deaths by gender, age, and race-ethnicity, and discusses trends in the location of the preponderance of these deaths, the St. Louis area. It also provides some background information on opioid drugs and describes actions taken at the state and federal levels to prevent heroin deaths. The article can be accessed at <http://health.mo.gov/data/focus/pdf/AccidentalDrugPoisoningDeaths2015.pdf>.

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### **New Topic Area Added to Healthy People 2020 Tracking Website**

The Injury and Violence Prevention topic area has been added to the Healthy People 2020 – Missouri Data Resources website at <http://www.health.mo.gov/data/mica/MICA/hpobjectives.html>. This site provides links to topic area spreadsheets that detail sources of local Missouri data for the Healthy People 2020 objectives. For each objective, we have listed a comparable indicator from a Missouri data source, if available, along with the type of rate (1-year, 5-year, etc.) provided by the source and the geographic levels for which rates are available (state, county, city, region, etc.). The last two columns of the spreadsheet include the U.S. baseline and target rates from the Healthy People website. Users can download the table and add additional columns to incorporate their communities’ data, which can be easily accessed using the hyperlinks on the Missouri Data Source labels. Additional topic areas will be added as they are completed.

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## Public Health Spotlight



Becca Lander is a relatively new face at DHSS. She joined the Office of Epidemiology in August and completed her Ph.D. soon after, meaning she is now Dr. Lander! Her journey to the academic elite began in 2007 when she graduated from the University of Iowa with a B.A. in anthropology and a minor in biology. She completed her M.A. in forensic anthropology at Texas State University in 2010 and now holds a Ph.D. in anthropology from the University of Missouri.

Some would be surprised by Dr. Lander's jump from academia to public health, but her dissertation was centered around epidemic modeling and, in her words, she "...wanted a more immediate impact on people than pure research." This led Becca to her current position as a Data Manager and Research Analyst for two programs, Show Me Healthy Women and WISEWOMAN. Show Me Healthy Women focuses on providing breast and cervical cancer screenings to Missouri women who meet certain age, income, and insurance guidelines. The WISEWOMAN program offers heart disease and stroke prevention screenings and education.

Becca uses health data daily in her work for these programs. For example, she's currently using survey and treatment history data to complete WISEWOMAN program evaluations. One of the goals of these evaluations is to improve the usefulness of hypertension screening procedures. Show Me Healthy Women contributes data to a national tracking program and is currently working on targeted outreach in McDonald County. This program is also in the process of creating a partnership with Moberly Area Community College to develop a Community Health Worker training program.

Outside of the workplace, Becca keeps busy by enjoying a series of eclectic hobbies. Rock climbing and playing video games top the list of her favorite leisure-time activities, though she also spends time entertaining her dog, Sheldon. When asked, on one of the coldest days of the fall, about her favorite winter memory, Becca was quick to reply that she spent a portion of the winter of 2006 in Australia, which is actually that continent's summer season. "I skipped winter; it was excellent," was her enthusiastic response. She was just as enthusiastic about one of the standard questions for these interviews, which asks the spotlighted public health practitioner to share a fact that might surprise readers. Dr. Lander, who is a member of the Chronic Disease and Nutrition Epidemiology Team, replied, "If you cut me open I would probably bleed Diet Coke and Cheez-Its." These would therefore be good cube-warming gifts if you would like to help us welcome Becca to the Department.

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## Upcoming MICA Trainings

There are no MICA trainings currently scheduled. Any updates will be posted at <http://health.mo.gov/data/mica/MICA/healthdatatraining.html>.

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## Data Updates

Several of the Profiles and Data MICAs have been updated since the publication of the last newsletter. They include:

Chronic Disease MICA – through 2013

Medicaid Records MICA – through November 2015

Preventable Hospitalizations MICA – through 2013

Procedures MICA – through 2013

TANF (Temporary Assistance for Needy Families) MICA – through November 2015

Diabetes Profile – through 2013 for deaths, hospitalizations, and ER visits; updated to 2014 for BRFSS (Behavioral Risk Factor Surveillance System) prevalence indicators; updated to 2015 for YTS (Youth Tobacco Survey) and YRBSS (Youth Risk Behavior Surveillance System) prevalence indicators

Hospital Revenues Profile – updated to 2012-2014

Minority Health Profile – through 2013

Social and Economic Indicators – through 2014

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## Recent/Upcoming Events

The Data Dissemination team stayed busy throughout the fall at several different conferences and events. The entire training team attended the Missouri Public Health Association Conference in Columbia this September and hosted an interactive MICA exhibit, where we had the chance to meet with several of you. The following week, Whitney and Evan traveled to the Southeast corner of the state to share an exhibit on alcohol, tobacco, and other drug-related data at the PEEPS (Prevention Education Empowers People) Conference in Sikeston. More recently, Whitney and Andy shared an exhibit based on child health data at the Missouri Consolidated School Health Coalition Conference in Lake Ozark.

On October 7 and 8, the training team presented *Introduction to Profiles and MICA and Health Data Analysis* for the Family and Community Trust (FACT). FACT assists the state's 20 community partnerships and also serves as Missouri's KIDS COUNT grantee. Staff from both programs were able to attend.

On November 18, Andy and Becca spoke at the Missouri Rural Health Conference in Columbia. Their presentation, titled "*The Missouri Rural Health Report: Using Data to Tell Your Story*," shared data and analysis from the upcoming *2014-2015 Missouri Rural Health Report*. The



presentation slides from this conference are available on the Office of Rural Health website at <http://health.mo.gov/living/families/ruralhealth/conference.php>. While Andy and Becca were busy handling the presentation, Whitney ran an exhibit showcasing rural and urban data.



If you missed visiting with us at these events, you will have plenty of opportunities to see us over the next several months!

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Q&A

I am working with a statewide chronic disease initiative to determine where to distribute information related to risk factors and potential treatment options for specific chronic diseases. We would like to distribute some of this information in hospitals. Should we focus distribution in hospitals at large or primarily in emergency rooms (ERs), where more people are treated?

In 2013, the number of Missouri resident ER visits was more than triple the number of Missouri resident inpatient hospitalizations. Therefore, it might make more sense to distribute general health information in the ER, where it would reach a larger audience. But is that necessarily the best way to distribute resources related to specific chronic diseases? The Chronic Disease Comparisons Profile can be used to answer this question.

The Chronic Disease Comparisons Profile allows users to view the number of hospitalizations, ER visits, and deaths, along with their associated rates, for several of the most common chronic diseases and a few major subcategories, such as specific types of cancer. Thus, it is easy to locate a specific chronic disease on the table and determine whether materials related to that disease would reach more people if they were distributed through the ER or through inpatient settings. This Profile reveals that some chronic diseases, such as stroke, have higher numbers of hospitalizations than ER visits, but others, like COPD, have higher numbers of ER visits than hospitalizations.

Chronic Disease Comparisons Profile - for Missouri Residents

[Select a different geographical area](#) [Main profile page](#) [Print profile](#)

All Race

Indicators

	Data Years	Number of Events	Rate	Significantly Different	Ranking Quintile	Trend Lines	Comparison Bar Graphs	Download Data
Heart Disease								
Deaths	2002-2012	161,509	223.6					
Hospitalizations	2008-2012	435,911	129.8					
ER Visits	2008-2012	440,159	14.3					
Ischemic Heart Disease								
Deaths	2002-2012	109,282	151.2					
Hospitalizations	2008-2012	141,828	41.6					
ER Visits	2008-2012	21,744	0.7					
Stroke/Other Cerebrovascular Disease								
Deaths	2002-2012	35,908	49.8					
Hospitalizations	2008-2012	99,100	29.3					
ER Visits	2008-2012	26,188	0.8					
Chronic Obstructive Pulmonary Disease Excluding Asthma								
Deaths	2002-2012	34,726	48.5					
Hospitalizations	2008-2012	80,360	23.6					
ER Visits	2008-2012	173,859	5.7					

Members of a statewide initiative might find helpful a summary chart comparing the number of hospitalizations with the number of ER visits for each chronic disease. The Comparison Bar Graphs feature would allow us to create bar charts comparing different chronic disease inpatient hospitalization diagnoses or different chronic disease ER visit diagnoses, but hospitalizations and ER visits cannot be compared on the same chart through this feature. However, we can use the “Download Profile” link at the bottom of the table to export the data into Microsoft Excel in order to create a custom chart. (A portion of the downloaded table is shown below.)

	A	B	C	D
1	Chronic Disease Comparisons Profile for Missouri Residents			
2		Data	Number of	Age-Adjusted
3		Years	Events	Rate
4	Hospitalizations: Heart Disease	2008-2012	435911	129.8
5	ER Visits: Heart Disease	2008-2012	440159	14.3
6	Hospitalizations: Ischemic Heart Disease	2008-2012	141828	41.6
7	ER Visits: Ischemic Heart Disease	2008-2012	21744	0.7
8	Hospitalizations: Stroke/Other Cerebrovascular Disease	2008-2012	99100	29.3
9	ER Visits: Stroke/Other Cerebrovascular Disease	2008-2012	26188	0.8
10	Hospitalizations: All Cancers (Malignant Neoplasms)	2008-2012	117104	34.6
11	Hospitalizations: Colorectal Cancer	2008-2012	14741	4.4
12	Hospitalizations: Lung Cancer (SEER)	2008-2012	15895	4.6
13	Hospitalizations: Breast Cancer	2008-2012	5766	1.7
14	Hospitalizations: Cervical Cancer	2008-2012	1849	0.6

Before we try to create a chart, we must remove any unnecessary rows. For instance, if we wish to compare only hospitalizations and ER visits, we should remove the rows for deaths (which appear lower on the table and are not included in the screenshot above). We should also remove any diagnoses that do not include rows for both hospitalizations and ER visits, such as the specific types of cancer, which only include rows for deaths and hospitalizations. Once the unnecessary rows have been removed, the Excel worksheet should look similar to the one below.

	A	B	C	D
1	Chronic Disease Comparisons Profile for Missouri Residents			
2		Data	Number of	Age-Adjusted
3		Years	Events	Rate
4	Hospitalizations: Heart Disease	2008-2012	435911	129.8
5	ER Visits: Heart Disease	2008-2012	440159	14.3
6	Hospitalizations: Ischemic Heart Disease	2008-2012	141828	41.6
7	ER Visits: Ischemic Heart Disease	2008-2012	21744	0.7
8	Hospitalizations: Stroke/Other Cerebrovascular Disease	2008-2012	99100	29.3
9	ER Visits: Stroke/Other Cerebrovascular Disease	2008-2012	26188	0.8
10	Hospitalizations: Diabetes Mellitus	2008-2012	55831	17.8
11	ER Visits: Diabetes Mellitus	2008-2012	56740	1.8
12	Hospitalizations: Chronic Obstructive Pulmonary Disease Excluding Asthma	2008-2012	80360	23.6
13	ER Visits: Chronic Obstructive Pulmonary Disease Excluding Asthma	2008-2012	173859	5.7
14	Hospitalizations: Asthma	2008-2012	39089	13.1
15	ER Visits: Asthma	2008-2012	151123	5.3
16	Hospitalizations: Arthritis/Lupus	2008-2012	141974	41.7
17	ER Visits: Arthritis/Lupus	2008-2012	297484	9.9
18				
19	Hospitalization rates are per year per 10000 population and are age-adjusted to the U.S. 2000 standard population.			
20	Emergency Room rates are per year per 1000 population and are age-adjusted to the U.S. 2000 standard population.			
21	* Fewer than 20 events in numerator; rate is unstable.			

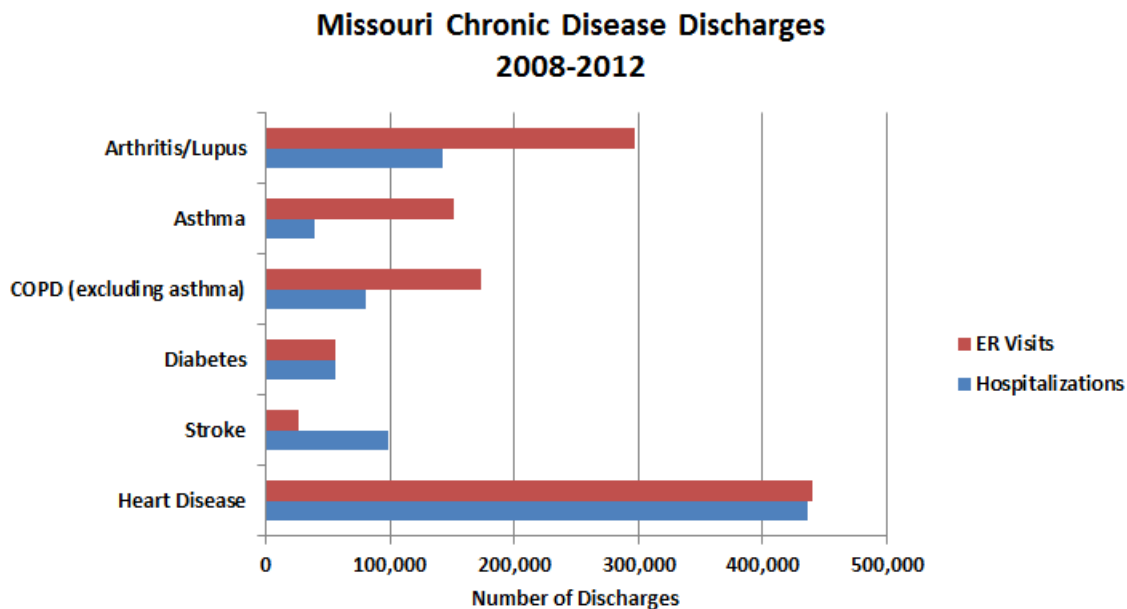
We can now rearrange the hospitalization and ER visit numbers into separate columns for each disease of interest. The end result should resemble the table to the right.

NOTE: In this example, counts of hospitalizations and ER visits were used because the analysis was concerned with only one geography (Missouri). If the

results of the analysis are to be compared for different geographies, such as two counties or a county and the state, we would recommend using rates instead of numbers. Rates will ensure a valid comparison between communities of different sizes. The use of rates would require an additional step in comparing hospitalizations with ER visits, as these two types of rates use different constants (10,000 for hospitalizations versus 1,000 for ER visits, as explained in the Profile footnotes). The user would need to either divide the hospitalization rates by 10 or multiply the ER visit rates by 10 so that the hospitalization and ER visit rates could be directly compared.

	Hospitalizations	ER Visits
Heart Disease	435911	440159
Stroke	99100	26188
Diabetes	55831	56740
COPD (excluding asthma)	80360	173859
Asthma	39089	151123
Arthritis/Lupus	141974	297484

To create the chart, a user would need to highlight the cells in the table and then select the Insert tab at the top of the Excel window. From this tab, Bar would be selected from the chart section of the menu. We recommend selecting the first (Clustered Bar) option under the 2D Bar charts. Excel will generate a horizontal bar chart showing the different numbers of hospitalizations and ER visits for each disease. After adding appropriate titles and making a few small edits, users could produce a final chart similar to the one shown below. This type of graphic could be extremely useful for determining where to distribute educational materials related to specific chronic diseases.



Similar analyses could be performed using the Assault Injury and Unintentional Injury Profiles. Both of these Profiles provide inpatient hospitalization and ER visit rates for specific injury mechanisms.

Practice Exercise

Many of you have asked for additional exercises such as the one below so that you can practice the skills you learned at the MICA trainings. If you would like to check your work, a link to the answer key is provided at the bottom of this section.

While working on a community health assessment for your agency, the Washington County Health Department, you notice a significant increase in COPD/bronchiectasis hospitalizations between 2011 and 2013. You discuss your concerns with staff from the Franklin County Department of Health and the Warren County Health Department, which are also located within the St. Louis Metro BRFSS Region. Together, you decide to use the MICA system to determine whether or not there is an increasing problem with COPD in the area. If so, you would be interested in applying for grant dollars to allow you to partner with local hospitals to stage an

intervention. You begin researching grant opportunities to find out what sorts of data may be required.

1. Use the Inpatient Hospitalization MICA to determine the 2011 and 2013 age-adjusted COPD/bronchiectasis hospitalization rates for residents of the state, each of the three partner counties, and the three counties combined. The Franklin County information is provided as a guide. (HINT: If County/City is selected as the row variable in Step One and all three counties are selected using the CTRL key in Step Five, the Total for Selection row provides the combined rates for all three counties.)

	2011	2013	Did rate increase?
Missouri			
Franklin County	22.0	20.7	No
Warren County			
Washington County			
Tri-county area			

2. You want to determine if any changes in Washington County and in the tri-county area are meaningful and if there are meaningful differences between your area and the state overall. Return to the query screen and add 95% confidence intervals to your table. What are the confidence intervals for the following areas of interest?

	2011	2013
Missouri		
Washington County		
Tri-county area		

Is the difference between the 2011 and 2013 Washington County rates statistically significant? _____ If so, how? _____

Is the difference between the 2011 and 2013 tri-county rates statistically significant? _____ If so, how? _____

Are the 2013 Washington County and Missouri rates statistically significantly different? _____ If so, how? _____

Are the 2013 tri-county and Missouri rates statistically significantly different? _____ If so, how? _____

3. Many of the grant opportunities you review ask that grantees target the age groups that are most impacted by high COPD/bronchiectasis rates. Revise your query so that you can view rates by age for the 2013 data. Which age group(s) have the highest rates in Washington County and the tri-county area? (HINT: Click the All Ages hyperlink to view more detailed age groups.)

Washington County _____
Tri-county area _____

4. Based on the data gathered in the questions above, should the partners move forward in applying for grant dollars to fund a COPD intervention? Why or why not? _____
- _____
- _____
- _____
- _____

Visit <http://health.mo.gov/data/mica/MICA/solutions.html> to check the solution.

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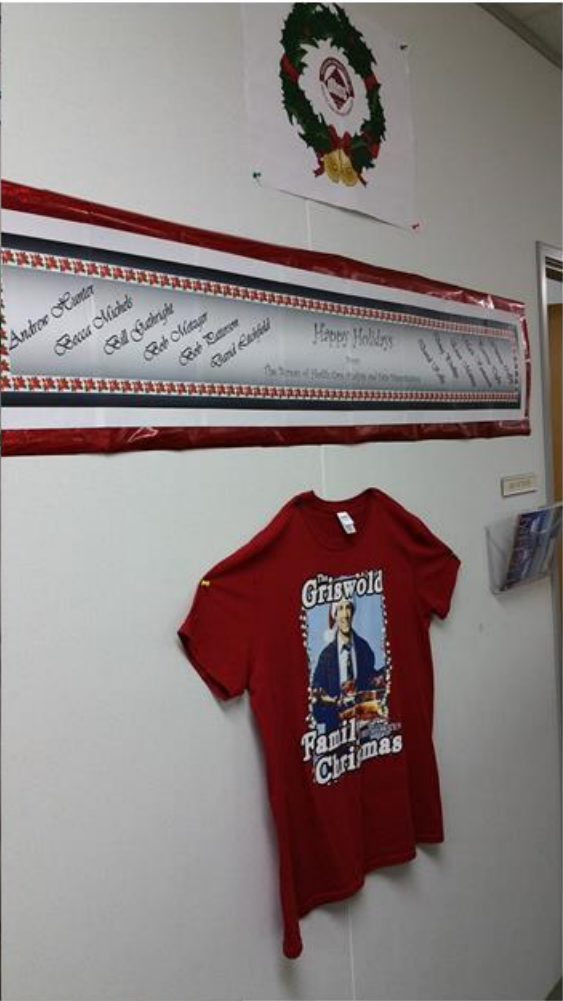
### Final Thoughts

In this issue of the newsletter we must send congratulations to two members of the MICA training team, Evan Mobley and David Kelly. Both were recently promoted. Evan will now be performing analysis for the Maternal, Infant and Early Childhood Home Visiting (MIECHV) Program within the Office of Epidemiology, while David will be working as a mortality analyst within the Bureau of Vital Statistics. Unfortunately for us, these promotions mean that they will no longer be serving as MICA trainers. Fortunately, however, they still sit close by so we can send them our mortality and maternal, infant, and child health data questions.

Luckily, both were able to contribute to BHCADD's efforts in the Division's annual holiday decorating competition before they transferred! Displays throughout the Bureau depicted scenes from the classic film *National Lampoon's Christmas Vacation* and provided relevant Missouri health statistics related to each disaster. For example, in November and December 2013, there were 244 Missouri resident ER visits and 76 Missouri resident hospitalizations due to accidental falls from ladder/scaffolding or accidental falls from buildings. We received Honorable Mention (2nd place) in the Best Unit Space category for our efforts.









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About the MICA User Group Newsletter

The MICA User Group Newsletter was created in response to user requests for communication on updates to the MICA system, descriptions of new features, additional practice exercises, announcements of training opportunities, and any other new information about data that might help them perform their jobs more efficiently.

Newsletters will be published on a quarterly basis. If you have ideas for content, please send them to Andrew.Hunter@health.mo.gov or Becca.Mickels@health.mo.gov. We would especially like to feature stories describing your success at completing projects or obtaining grants using the MICA tools as well as interviews with public health professionals about your duties and how you use MICA to accomplish them.

Past issues are available at <http://health.mo.gov/data/mica/MICA/newsletters.html>.

Contributors:

Andy Hunter, Becca Mickels, Whitney Coffey, and David Kelly

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## How to Sign Up or Opt Out

If you have enjoyed this newsletter, please feel free to share it with your colleagues and community partners. We encourage them to sign up for the MICA User Group by sending an e-mail to [Andrew.Hunter@health.mo.gov](mailto:Andrew.Hunter@health.mo.gov) or [Becca.Mickels@health.mo.gov](mailto:Becca.Mickels@health.mo.gov) with the subject line MICA User Group. This will let us know to send newsletters to them directly so they do not miss any information. Also, we may occasionally distribute time-sensitive information on topics such as training opportunities via e-mail if the newsletter is not scheduled for publication prior to a registration deadline. Finally, the MICA User Group list helps us track the types of organizations using the tools, which is one of our performance measures.

If you would like to opt out of the MICA User Group, please send an e-mail with Unsubscribe in the subject line to [Becca.Mickels@health.mo.gov](mailto:Becca.Mickels@health.mo.gov). PLEASE NOTE: Depending on your position title, you may still receive other types of e-mail messages from us. For example, we are requested to send training information to all LPHA Administrators, even if they have unsubscribed from the MICA User Group.

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